

BLUESTONE MIXTURE,
AND SOME OTHER THINGS

Folks Need Not Be So Frightened
About the High Cost of
Things.

FRUIT GROWERS GET IT EASY

Some Guessing in a Haphazard Way,
Facts and Figures That Tell in
the Long Run—Guesswork Does
Not Always Pan Out.

Because bluestone costs so much now, many fruit growers are doing away with the Bordeaux mixture as a spray, and are buying materials of unknown value for still higher prices. A horticulturist at the Virginia Polytechnic Institute, thinks this is very unwise, and has this to say in support of his view, which he writes to the Richmond Times-Dispatch.

"Should I use the 1-5-50 Bordeaux formula and arsenate of lead when I use stone costs 30 cents per pound, or should I substitute some prepared spray material?" is a question many fruit growers are now asking. As an answer let us compare the above formula with two Bordeaux and arsenate of lead paste substitutes now being largely sold in Virginia. Bordeaux made according to the Virginia formula contains:

Bluestone, four pounds, at 30 cents	\$1.20
Stone lime, 5 pounds, when slaked 68 pounds, at 1-2 cents	.03
Powdered arsenate of lead, one pound, equal to 3 pounds paste lead, at 17 cents	.17
Total dry materials, 11.6 pounds, cost	1.40

SOME FACTS THAT ARE WORTH CONSIDERING

It is wrong to use guess work in discussing a problem like this, but since our fruit growers are guessing in an haphazard way, let us guess intelligently. Since the substitutes mentioned below are in the form of paste, let us, for the sake of comparison, assume that they contain 20 per cent moisture. Adding 20 per cent moisture to 11.6 pounds dry materials in formula above, we have 13.9 pounds paste to each barrel, at a cost of \$1.00 per barrel, or almost exactly 10 cents per pound. And this is a material about which there is no question of doubt. No substitute, pound for pound, can be better. Substitute number one costs 10 cents per pound in small lots, and as low as 11 cents in larger quantities. Substitute number two costs the same price, but eight pounds are supposed to be used to each fifty gallons of solution instead of five pounds in the recommendation for number one.

In other words, Bordeaux properly made with Bluestone at 44 cents per pound is as cheap and more safe to use than substitute paste material now being sold. You know what you are getting when you make your own Bordeaux. And this is not meant as a condemnation of the prepared materials. Some have good records. Many are new.

THE REAL SECRET OF THE BORDEAUX

A paste material containing the amount of Bluestone, lime and arsenate of lead recommended in Virginia for the June spray for bitter rot, and second brood of codling moth must weigh at least fourteen pounds. It is unwise and unfair to compare Bordeaux with other materials on any other basis.

Bordeaux is made as follows: Dissolve the bluestone by suspending the desired number of pounds in a sack at the top of a wooden or earthen vessel containing an equal number of gallons of water. Shake the desired number of pounds of stone lime and dilute to an equal number of gallons of water. These are stock solutions, and each gallon contains one pound of the respective chemical. When ready to mix to the desired number of gallons of each of the stock solutions, add four gallons of water, then pour these diluted solutions into the spray tank at the same time, and dilute the mixture to a sufficient amount of water to fill the tank or enough water alone if no lead is to be used. Bordeaux is the standard spray for bitter rot, blight, and various diseases of the grape, melon and other vines. Do not use on peach, cherry or plum.

CONSOLIDATED CONCERNS ENLARGE AT CLARKSBURG

West Virginia Town Becomes Home of One of the Biggest Concerns for the Business.

CLARKSBURG, W. Va., April 29.—The United States Smelting Corporation has been chartered here with a capitalization of \$7,000,000. It is understood that the new company will not only get in a great new development, but will also take under its control several institutions that have already been established, among them, the Leadhill Company, the Kenzie Zinc Corporation, which has properties here and also in Missouri. These plants include a refinery with annual capacity of 50,000 pounds of spelter, a refining plant of 10,000 pounds, an immense pottery plant and various other plants of more or less capacity. The new company has in mind further development plans that will include the construction of two additional rotary kilns, and other improvements that will give the new company the power for an immensely enlarged output, something perhaps more than twice the present capacity of the various associated plants.

BIG MILLS ENLARGING

Half a Million Dollars to Be Spent in Town of Rockingham—More People Employed.

ROCKINGHAM, N. C., April 29.—The reports that have been made for several months past concerning the enlargement of the Steele Cotton Mills here, have at last gotten down to facts. It is now authoritatively announced that the great plant will be once again enlarged, the great plant adding 17,000 spindles, the amount of all the necessary accompanying machinery, all of which will require an outlay of close to \$500,000. This will about double the number of people to be employed.

Gastonia Gets Another Mill

CLINTON, N. C., April 29.—The Gastonia Mills Company has just received from the State a \$250,000 capital stock, and that the new mill will be put in operation at once to build a mill for the manufacture of cotton cloth.

HOPEWELL'S STEEL PLANT NOT A LAND SALE BOOMER

Plant Had Been Arranged For Before the Du Ponts Said Their Say About Speculation.

SURE THING TO GO TROUGH

Man on the Inside Tells Story That Is of Striking Interest to a Good Many People Who Are Hopeful of Hopewell.

A leading railway official, who is in a position to know whereof he speaks, and is in no way interested in any town lot or land booms anywhere in or about Hopewell, has put himself to the trouble to write out the concrete facts regarding the proposed steel plant at Hopewell. He says there is, or was, some danger of the steel plant proposition being construed as a land boomer's advertisement. His views of the situation from an inside observation were prepared for the Manufacturers' Record and The Times-Dispatch.

BY NO MEANS A NEW THING.

BUT WELL THOUGHT OUT

This railroad man, who wishes his name kept a secret for the present, says:

"The proposed steel plant is not a new enterprise, by any means. Neither is it identified with the so-called land speculations of Hopewell. In fact, the plant was intended to be located at a point down the James River, on what is known as Powhatan Plantation, due north from Powhatan, a station on the main line of the Norfolk and Western Railway. When the announcement, however, was forthcoming that the Du Pont Company could promise little after the close of hostilities, some of the leading business men of Petersburg asked that the location be changed."

"The mill as planned will be modern in every adjustment electrically driven, and so constructed that it will be the latest and most modern mill now building. It will start as a billet mill, and gradually expand. Among the principal local men interested are C. D. Eppes, Petersburg, Va.; C. S. Barrow, Albemarle, Va.; Captain T. C. Heath, Petersburg, Va.; H. Rosenstock, Petersburg, Va.; Walter Sachs, Petersburg, Va.; and numerous others who have taken stock in the plant, ranging from \$5,000 upward. Of course, there are many more, but around this body of men they have laid the foundation of a plant and subscribed locally about \$200,000. In addition to this, there are subscriptions coming from other sources that make the common stock about \$500,000."

"They propose to raise on the bond issue about \$1,000,000, and this will build the plant and give it ample working capital."

HOME FOLKS WILL FURNISH AMPLE MONEY IF NECESSARY

"The citizens of Petersburg and Hopewell are in earnest in their efforts, and I feel quite certain that they will succeed in the establishment of this plant, which will mean much to that section and to the South in general."

"After spending the greater part of three weeks in Petersburg and Hopewell and studying the situation at first hand, I have come to the conclusion that the future of Hopewell is assured, whether the Du Ponts remain to any great extent or not. The section has been well advertised, and economic conditions are such that industrial success is assured, while the conservative business men of Petersburg have witnessed such a revolution in business conditions that they cannot think of going back to the life that existed there only a year ago."

"There is ample capital in Petersburg to back not only one, but several such plants. The banks have nearly \$12,000,000 on deposit, and are growing rapidly. The past year has seen an increase in deposits of \$1,000,000."

"I expect that final organization will take place this week, a charter be applied for and contract let for the construction of the mill. The W. B. Miller Engineering Company, Pittsburg, no doubt will be the engineer, and has promised to have the plant in operation within seven months after the contracts are signed."

"Nowhere have I witnessed so much determination to accomplish the desired end, so that in reality two weeks after the movement was launched the end was in sight."

"There was not a single dollar's worth of watered stock in the promotion. The site has been donated, and every man has paid 100 cents on \$1 for his stock. The manner in which the bonds will be disposed of has not been decided upon, but in all probability a local syndicate will underwrite them and place them on the market, many of which will be purchased in Petersburg."

TOO MUCH COOL WEATHER: BUSINESS FAIRLY GOOD

Richmond Jobbers Very Well Satisfied With the Good Week's Work. Builders Are Very Busy.

R. G. Dun & Co.'s special review of the past week's business, prepared for The Times-Dispatch is brief and to the point, as follows:

Developments continue favorable as a whole, although in some lines there is less active than a month ago. Continued cool weather retards seasonal purchases at retail. Local stores are well stocked with spring and summer goods, and a normal season is looked for.

In local jobbing circles, business generally speaking is satisfactory. Groceries, farm implements, etc., are in the line. Shoe dealers report large sales, with further improvement expected.

Household supplies and building material are moving fairly well, at much higher prices than last year. Collections continue fairly satisfactory.

Richmond bank statements show a large increase in deposits. Clearings for the week were \$1,524,359.96, as compared with \$555,750.00 for the corresponding week last year.

GROVES COTTON MILLS

Twelve Thousand Spindle Cotton-Yarn Mill to Go Up at Once at Gastonia.

GASTONIA, N. C., April 29.—The Groves Mill Company was incorporated here yesterday with ample capital, the exact sum of which is not given for the present, to get busy at once in the erection of new cotton mill here. The announcement that has yet been made public is to the effect that the first mill the company will build will be a 12,000-spindle cotton yarn mill, and that over 200 hands will be employed.

Registered Hereford Cattle, Invading Hanover County



MAKING OUR OWN POTASH NECESSITY OF FUTURE

Believed That This Country Need Not Depend on Germany for All Its Supplies.

SOME LESSONS FROM THE WAR

If the Fighters Keep on Fighting, We May Learn to Be Entirely Independent of All Foreign Aid. Standing on Our Own Feet.

Potash salts were produced in the United States in 1915 to the value of nearly \$350,000, according to the latest report of the United States Geological Survey. This figure does not come anywhere near filling the bill, but it is of interest to the whole country, especially the tobacco-growing part of it, in that it shows that our government is doing its utmost to make its people in all lines of trade and industry entirely independent of any future war conditions that may be in the old country.

HOW THE STUFF WAS FOUND AND MADE

The imports of refined potash salts in 1915 were 76,141 long tons, or slightly more than 25 per cent of those in 1913, the latest normal year of importation. Imports of the potash fertilizers, kainite, manure salt, and double manure salt, amounted to 29,427 long tons, or about 2 per cent of those in 1913. Taking all the potash salts together, the imports in 1915 were about one-tenth of those under normal conditions.

In the survey report on the subject, W. C. Phalen states that potash was recovered within the United States as a by-product from the manufacture of Portland cement at Riverside, Cal. A by-product potash from this source has yielded a considerable high price for these salts, and in obtaining it two other purposes have been subserved—first, the saving of additional material to be converted into cement, and second, the elimination of the dust nuisance. At Riverside, a discharge of 100 tons of dust a day over the surrounding orange groves has been prevented.

Potassium sulphate from aluminate was first placed on the market late in October, 1915, by the Mineral Products Corporation at Marysville, Utah. The production has not been large so far, owing to the incidents connected with a pioneer enterprise of this character. Though certain foreign deposits of aluminate have been worked for potash salts, this is the most recorded yield of potash salts as such from aluminate. The product is of high grade.

TRYING OUT IN THE FAR WEST

The plant of the Potash Products Company, of Omaha, Neb., was established in the spring of 1915 at Padland, near Alliance, in the northwestern part of the State. During about half of the year the company obtained potash salts from the brine of an alkaline lake in this region.

In addition to output from the above sources, potash was marketed in 1915 from kelp obtained along the Pacific coast.

Experimental work on the production of potash salts from different sources was active during the year, and it places this activity has been succeeded by the construction of plants. Operations are in progress at Seaford Lake and at Keeler on the shores of Owens Lake, Cal. It is reported that one company is erecting a plant near Great Salt Lake, and that another will soon be started at the south end of the lake. The by-product bittern at solar evaporation plants on San Francisco Bay has also received some attention.

Another plant has been planned for the extraction of potash salts and aluminate from aluminate at Marysville, Utah.

OTHERS ARE TRYING

Manufacturers of Portland cement, having had their attention directed to a possible revenue from by-product potash, will not be slow in thoroughly investigating their raw material. Already the Security Cement and Lime Company, near Hagerstown, Md., is installing a plant for the recovery of potash salts.

Great activity has been manifested in experiments for the recovery of potash from the silicate rocks, such as feldspar and eluclite, from the mica schists, and from green sand. The expense involved in obtaining potash salts from these sources, together with the uncertainties with which manufacturers will be confronted and the keen German competition likely to be met at the close of the war in Europe, have tended to discourage chemical engineers and capitalists. However, in many laboratories researches have been in progress, some of which, according to reports, offer prospects of profitable commercial development if feldspars and other potash-rich rocks in sufficient quantity and purity can be found and made available.

A small quantity of potash salts was probably produced from these silicate rocks and minerals during 1915, and found its way into mixed fertilizers without intermediate refinement.

NEW CATTLE IN HANOVER TO START BIG INDUSTRY

Milwaukee Beef Packers Decide to Grow Stock on the Plains of Hanover.

Several months ago a big packing house of Milwaukee, Wis., known as the Ursinger Brothers, the brothers being Fred and Adolph, came down to Virginia and bought something like 3,000 acres of land in Hanover County at New Wales, three miles below Hanover Courthouse. The idea of the packers was to grow the cattle needed for their great packing house on their own farms and they thought one of the best places to run such a farm was in old Virginia. Last week the Ursinger Brothers brought their first shipment of cattle to the new Virginia plant.

In the herd they unloaded at Hanover the other day there were 100 registered Hereford heifers and two registered Hereford bulls. They were brought from Kansas, where the concern now has large cattle ranches. This shipment of over a hundred cattle is but the beginning of the stocking of the Hanover County ranch. In the next six months there will be many more shipments and within a year there will probably be over a thousand cattle on the place.

The movement of the 102 fine animals from Hanover to New Wales attracted large crowds last week, and the Hanoverites cheered the cattle and their drivers as they passed along the road.

GOOD ROADS WIN OUT

Scott County District Shows Its Love for Good Roads in Substantial Way.

GATE CITY, Va., April 29.—A road-board election was held in Floyd District of Scott County Tuesday and resulted in a majority of eighty-eight for the bond issue. The amount of the bonds will be \$125,000. Floyd is a small district and adjoins Wise County, in which good roads have already been built. A year ago an election in the same district resulted in a defeat of a bond issue.

There are seven districts in the county, and four of them have voted bonds. —Estillville District, \$175,000; Johnson District, \$100,000; Fulkerson District, \$100,000; and Floyd District, \$125,000. About sixty miles of road was graded last year and ten miles of macadam kept down. A convict force of fifty men, the county road crew, and several miles more will be graded in the Estillville District. Johnson District also will finish the sections of road through road to Washington County. Elections will be held this year in the remaining districts of the county.

LUMBER FOLKS GET BUSY

New Company at Cornwall Find Plenty of Work to Do—Big Pay-roll Started.

CORNWALL, Va., April 29.—The South River Lumber Company that was recently incorporated to do business here with a capital stock of \$100,000 has completed plans for immense work in this section this year. The first thing on hand are the building of a logging railroad and hand sawmill, the latter to have daily capacity of 50,000 feet of lumber. It is expected that quite a village will grow up around the works of the company. More than 200 people are already employed there.

LONG- FELT WANT SUPPLIED

That Is the Way Charlotte Regards the Starting of New Industry in That Town.

CHARLOTTE, N. C., April 29.—The Charlotte is the newest organization to show up in Charlotte. The company was organized and duly chartered this week with \$50,000 paid-in capital. The business of the new concern will be to manufacture drugs and chemicals to supply this part of North Carolina, etc., as may be necessary to ward off the usual spring diseases and troubles. Heretofore the people have been dependent on the country merchants and remedies, and then the die has been cast for just such a shop as has been brought to pass.

Building in Chattanooga.

CHATTANOOGA, TENN., April 29.—The building summary for March, just issued by the city building inspector, placed in the month of March was \$184,900. In March of last year the figures footed up only \$45,000.

Salisbury Gets New Industry.

SALISBURY, N. C., April 29.—After long dispute and not a little of house talk the Marsh Cotton Mills Company has been inaugurated here with \$50,000 of capital. The report is that the new concern will proceed at once to build a fifty-foot mill for the manufacture of mercerized towels and to do other cotton-mill work. The report is that the mill will give employment to 200 operatives, mostly of the female kind.

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TIME TO LOOK TO ROADS IS APPROACHING FAST

While the Weather Is Good It Is Well to Look After the New Highways.

STATE CLAY ROADS NEED CARE

Split-Log Drag Is Great Institution When Properly Used in Good Time—Short Talk That Is Well Worth Considering.

The season is at hand for looking after the public roads, that is where they have been improved. Temporary repairs to roads are always expensive and to be avoided as much as possible. Unusual conditions, however, often occur, such as the closing of a main highway, suddenly throwing heavy traffic for a short time on an unimproved highway. In such cases temporary expedients must be resorted to.

On clay roads mud-holes cause the most trouble, and any treatment, whether temporary or permanent, must provide for getting rid of the water. The first step, therefore, is to dig a trench to the side and allow the mud and water to drain. If necessary, open side ditch also. Remove all soft mud left in the mud-hole. Fill the bottom of the trench with broken stone or coarse gravel to provide a drain to prevent further accumulation of water. Then fill the old mud-hole with gravel. If gravel is not available, use the best earth obtainable, tamping it down in three or four inch layers. If possible, spread a little gravel or sand over the new fill, which should be made slightly higher than the adjoining road surface. If the drainage is kept in good condition serious mud-holes will develop.

Earth or gravel roads are best treated with a drag. Do not be afraid of dragging too often during the rainy season. A thin coat of sand or gravel spread over the road surface when it has been softened by rain will be worked in by traffic. A liberal use of the drag greatly improves a poor earth road.

Sand roads give least trouble during wet weather. Anything that will prevent the free movement of the sand particles on these roads will be valuable. The addition of clay furnishes a good binder on sandy roads and is really the best treatment.

Immediate attention to small injuries on roads will prevent later prolonged attention and extensive repairs.

FINDING NEW METHODS FOR MAKING WATERS PAY

WASHINGTON, D. C., April 29.—Fresh shrimp from Southern waters can now be shipped to Northern and Western markets with their fine flavor unimpaired, and without any preservatives, according to a report just made by the investigators of the United States Department of Agriculture in charge of fish-packing investigations. This commission has for months been studying the handling and shipping of all manner of sea products.

Heretofore canned shrimp has been the main stock on the retail markets of the country, away from where they were caught. Now, however, trial shipments, made by the department investigators, working in co-operation with the fishermen and shippers, have demonstrated that when correct principles of handling and refrigeration are applied, freshly cooked or raw shrimp may be shipped for long distances in a fresh, prime condition. Arrangements have been made, in co-operation with the shrimp fishers, for shipments on a larger scale. The shrimp will be handled from the time they are caught until they reach the consumer according to the best methods of sanitation and refrigeration. The investigators of the department are of the opinion that, as a result of the improved methods in handling, cleaning and shipping, fresh shrimp soon will be as commonly used in all parts of the country as a delicacy. The delicate flavor of the shrimp when properly handled suggests the flavor of the lobster. Such shrimp, therefore, may be broiled, creamed, served à la Newburg, or prepared for the table in accordance with the usual lobster recipes.

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WAYS OF GIRLS' CLUBS; LENDING HELP ALL TIME

The Girls Strictly on Time—They Are Helping, and They Need Help Just a Bit.

TOWN MERCHANTS IN THE SWIM

Hotel Men Also See Their Way. County Leagues Getting Interested—Appropriations Are in Order—Girls Need Help.

A real interesting story comes to us from the Clark County Courier, a story that is of the industrial kind; but let the story speak for itself. Here it is: "Probably the greatest benefit that the demonstration and extension work is to the girls of the country districts lies in the new opportunities it opens to them. Here is an illustration: "One of the women agents in her weekly report says: 'The week was a bad one, and the roads even worse, which prevented the liverymen from hiring out their teams. One of the worst days I found a canning club girl in town marketing some of her products. She drives nine miles over the mountain. "Before this girl joined the canning club three years ago she was rather indifferent to this kind of work. Her interest has grown steadily, and now she has charge of the farm, and but for her efforts, I do not know what would have become of the family. Last summer she marketed \$200 worth of products from her own garden. She told me the other day that she still had seventy-five barrels of apples to sell, and now is her opportunity, with the prices advanced."

Huntington's New Industrial Catch.

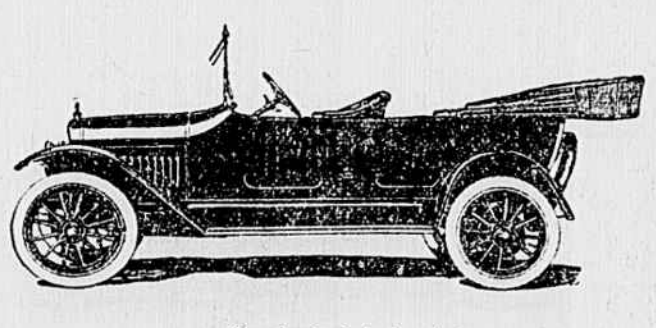
HUNTINGTON, W. Va., April 29.—The Kentucky Products Coal Company has been incorporated here with \$250,000 capital stock, held largely in Charleston and Louisville. The new company will maintain general offices in this city, and its principal business will be to develop some 2,000 or more acres of supposedly rich coal lands in Pike County, Ky.

Improvements at High Point.

HIGH POINT, N. C., April 29.—Announcement was made here yesterday that a three-story annex, to cost \$20,000, and an addition of a four-story building, to cost not less than \$10,000, are to be erected at once to add to the capacity of the High Point Hosiery Mills. This means an addition of at least 100 workers to the present large pay roll contingent of that factory.

To Mine the Coal.

CHARLESTON, W. Va., April 27.—The Lester Fork Coal Company, of this city, has been incorporated with an all paid capital stock of \$75,000, and all of the necessary papers have been duly taken out.



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Five-Passenger Touring Car	655
Touring Car (with All-Weather Top)	710
Two-Passenger Cabriolet	865
Six-Passenger Town Car	915
Five-Passenger Sedan	965

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